

Amendments to the Claims

This listing of the claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

Claims 1-5 Cancelled.

Claim 6 (New). Method for infrared data transmission comprising the steps of:

(a) providing an infrared data transmission system comprising a plurality of transmitter units and a common receiver station; and

(b) transmitting a plurality of data blocks via said plurality of transmitter units with a common carrier frequency,

wherein

each data block of said plurality of data blocks is repeatedly transmitted a number of times in a transmission interval from a respective transmitter unit of said plurality of transmitter units, the number of times being equal to a total

number of said plurality of transmitter units,

the transmission interval includes a plurality of repetition intervals for transmission of the data blocks, each repetition interval having a duration equal to the time of the respective transmitter unit that is between beginnings of two transmissions of the data block that follow one another,

each repetition interval duration for the respective transmitter unit differs from every other repetition interval duration of the other transmitter units by at least twice a transmission time of a maximum data block,

a shortest repetition interval of said plurality of repetition intervals corresponds at least to a multiple of double the transmission time for the maximum data block size, said multiple corresponding to the total number of said plurality of transmitter units,

the transmission interval of each transmitter unit of said plurality of transmitter units is equal in duration, and

said transmission interval ends after a last transmission of the data block of the transmitter unit with a longest repetition

interval of said plurality of repetition interval ends plus the transmission time of a maximum data block plus the duration of the shortest repetition interval.

Claim 7 (New). The method according to claim 6, wherein the plurality of data blocks are transmitted with a modulation of the carrier frequency of 56 kHz.

Claim 8 (New). An infrared data transmission system comprising,

(a) a common receiver; and
(b) a plurality of transmitter units that repeatedly transmits data blocks of varying sizes to said common receiver along a common carrier frequency, each transmitter unit comprising,

a memory for combining data into data blocks and capable of being read out in repetition intervals,

a timing element,
a control unit connected to said timing element for reading data blocks out of the memory, and
a transmitter module for modulating the common carrier frequency,

wherein

each data block of said plurality of data blocks is repeatedly transmitted a number of times from a respective transmitter unit of said plurality of transmitter units to said common receiver along a transmission interval and according to a repetition interval,

the number of times is equal to a total number of said plurality of transmitter units,

the transmission interval includes a plurality of repetition intervals for transmission of the data blocks, each repetition interval having a duration equal to the time of the respective transmitter unit that is between beginnings of two transmissions of the data block that follow one another,

said plurality of repetition intervals has at least a longest repetition interval and a shortest repetition interval, said shortest repetition interval being at least a multiple of double a transmission time for a maximum data block size and the multiple is the total number of said plurality of transmitter units, wherein each one of said plurality of transmitter units has one of said plurality of repetition intervals,

each repetition interval duration differs from each other repetition interval duration of the other transmitter units by at least twice the transmission time for a maximum data block, starting from the shortest repetition interval extending step by step to a subsequent repetition interval of said plurality of repetition intervals, and

a duration of the transmission interval ends after a last transmission of the data block of the transmitter unit with a longest repetition interval of said plurality of repetition interval ends plus the transmission time of a maximum data block plus the duration of the shortest repetition interval.

Claim 9 (New). The system according to claim 8, wherein the plurality of data blocks are transmitted with a modulation of the carrier frequency of 56 kHz.